Postoperative Sepsis Rate
Technical Specifications

Patient Safety Indicators 13 (PSI 13)
AHRQ Quality Indicators™, Version 5.0
March 2015
Provider-Level Indicator
Type of Score: Rate

Description

Postoperative sepsis cases (secondary diagnosis) per 1,000 elective surgical discharges for patients ages 18 years and older. Excludes cases with a principal diagnosis of sepsis or pressure ulcer, cases with a secondary diagnosis of sepsis present on admission, cases with a principal diagnosis of infection, cases with a secondary diagnosis of infection present on admission (only if they also have a secondary diagnosis of sepsis), cases with an immunocompromised state, cases with cancer, obstetric discharges, cases with stays less than four (4) days, and cases with missing values as listed in denominator section.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]

Numerator

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-9-CM diagnosis codes for sepsis.

ICD-9-CM Sepsis diagnosis codes:

0380	STREPTOCOCCAL SEPTICEMIA	03844	SERRATIA
0381	STAPHYLOCOCCAL SEPTICEMIA	03849	SEPTICEMIA DUE TO OTHER GRAM-NEGATIVE ORGANISMS
03810	STAPHYLOCOCCAL SEPTICEMIA, UNSPECIFIED	0388	OTHER SPECIFIED SEPTICEMIAS
03811	METH SUSC STAPH AUR SEPT	0389	UNSPECIFIED SEPTICEMIA
03812	MRSA SEPTICEMIA	78552	SEPTIC SHOCK
03819	OTHER STAPHYLOCOCCAL SEPTICEMIA		
0382	PNEUMOCOCCAL SEPTICEMIA (STREPTOCOCCUS PNEUMONIAE SEPTICEMIA)	99591	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS WITHOUT ORGAN DYSFUNCTION
0383	SEPTICEMIA DUE TO ANAEROBES	99592	SYSTEMIC INFLAMMATORY RESPONSE SYNDROME DUE TO INFECTIOUS PROCESS WITH ORGAN DYSFUNCTION
03840	GRAM-NEGATIVE ORGANISM, UNSPECIFIED	9980	POSTOPERATIVE SHOCK

03841	HEMOPHILUS INFLUENZAE		
03842	ESCHERICHIA COLI	99802	SHOCK FOLLOWING TRAUMA OR SURGERY, SEPTIC
03843	PSEUDOMONAS		

ICD-9-CM Sepsis diagnosis codes for discharges prior to Oct 1, 2004 only:

78559	SHOCK W/O TRAUMA NEC
99800	POSTOPERATIVE SHOCK, UNSPECIFIED

Denominator

Elective surgical discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for an operating room procedure. Elective surgical discharges are defined by specific DRG or MS-DRG codes with admission type recorded as elective (SID ATYPE=3).

See *Patient Safety Indicators Appendices*:
- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

Exclude cases:
- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for sepsis (see above)
- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission[1]) for infection or pressure ulcer.
- with any-listed ICD-9-CM diagnosis codes or any-listed ICD-9-CM procedure codes for immunocompromised state
- with any-listed ICD-9-CM diagnosis codes for cancer
- with length of stay of less than 4 days
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

See *Patient Safety Indicators Appendices*:
- Appendix F – Infection Diagnosis Codes
- Appendix H – Cancer Diagnosis Codes
- Appendix I – Immunocompromised State Diagnosis and Procedure Codes

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[1] Only for cases that otherwise qualify for the numerator